Permissive Measures

Permissive measures allow the rapid engagement of targets beyond a line or into the area indicated without any further coordination. Permissive FSCMs include:

- **Coordinated Fire Line (CFL).** The CFL is a line beyond which conventional surface fire support means (mortars, field artillery, and naval gunfire ships) may fire at any time within the zone of the establishing headquarters without additional coordination.

- **Fire Support Coordination Line (FSCL).** The FSCL is a line established by the appropriate land or amphibious force commander to ensure coordination of fire that is not under the commander's control but that may effect current tactical operations. The FSCL is used to coordinate fires of air, ground, or sea weapons systems using any type of ammunition against surface targets. The FSCL should follow well-defined terrain features. The establishment of the FSCL must be coordinated with the appropriate tactical air commander and other supporting elements. Supporting elements may attack targets forward of the FSCL without prior coordination with the land or amphibious force commander, provided the attack will not produce adverse effects on, or to the rear of, the line. Attacks against surface targets behind this line must be coordinated with the appropriate land or amphibious force commander.

- **Free-Fire Area (FFA).** The FFA is a specifically designated area into which any weapon system may fire without additional coordination with the establishing headquarters.

Restrictive Measures

Restrictive measures refer to fires, or the effects of fires, into an area or across a line that must be coordinated with the establishing headquarters or the affected force on a mission-by-mission basis. Restrictive FSCMs include:

- **Restrictive Fire Line (RFL).** The RFL is a line established between converging friendly forces (one or both may be moving) that prohibits fires or the effects from fires across the line without coordination with the affected force.
- **No-Fire Area (NFA).** An NFA is an area into which neither fires nor the effects of fires are allowed. There are two exceptions:
  - When the establishing headquarters approves fires (temporarily) within the NFA on a mission-by-mission basis
  - When an enemy force within the NFA engages a friendly force, the commander may engage the enemy to defend his force.
- **Restrictive Fire Area (RFA).** An RFA is an area in which specific restrictions are imposed and in which fires that exceed those restrictions will not be delivered without coordination with the establishing headquarters.
- **Airspace Coordination Area (ACA).** An ACA is a three-dimensional block of airspace that protects friendly aircraft from friendly surface fires. An ACA can be formal or informal and is an effective means of coordinating air support and surface fire support on the battlefield, thereby allowing commanders to deliver supporting fires over and around this area.

INTEGRATING CLOSE AIR SUPPORT WITH OTHER FIRES

Surface Fire Support

One of the most difficult functions performed by an FSCC is integrating CAS with surface fires. The goal is to integrate air support with all other supporting arms and with ground force maneuver to achieve a combined-arms effect. The desire is to accomplish this without suspending the use of any of the supporting arms or unnecessarily affecting the scheme of maneuver. An additional goal is to offer a reasonable measure of protection to aircraft from the unintended effects of friendly surface fires.

- **Inform Supporting Arms Units.** When CAS is requested, the FSCC of the requesting unit (battalion, regiment, or division) informs other concerned FSCCs and all supporting arms units of details of the mission as quickly as possible. The aircraft's time of arrival on station and TOT or TTT is passed on. TOT/TTT is the desired CAS ordnance impact time. Aircraft may also be given a time block in which to conduct CAS attacks (e.g., 1200-1230Z). CAS aircraft conduct attacks within this time block to meet the TOT/TTT. TOT is expressed in terms of a synchronized clock at full minute increments, normally with reference to the current hour omitted (e.g., "TOT is 05," which indicates five minutes past the closest hour). TOT can also be provided in reference to a previously scheduled event, such as an H-hour (e.g., "TOT is H-02," which indicates two minutes before H-hour). TTT is expressed as the number of minutes and seconds required to elapse before ordnance impact. The clock start time is provided by the terminal controller and referred to as a time "hack."

- **Surface Fires Supporting Close Air Support Missions.** There are two primary forms of surface fires that support the conduct of CAS missions: target marking and SEAD. They are often used in combination.

Target Marking

A target mark should be provided for CAS aircraft whenever possible. A target mark should be planned to include sufficient time before weapons employment to ensure target acquisition by the CAS aircrew. When one of the following marking methods is not possible, the CAS target may be identified by a "talk-on" description provided by the terminal controller. The talk-on may be enhanced by the terminal controller marking his position with devices such as strobe lights, mirrors, or air panels. The target mark can be provided by:

- Indirect fire weapons (mortars, artillery, or naval gunfire)
- Direct fire weapons (tank main gun or machine guns)
- Laser designators
- FAC(A) aircraft (e.g., laser devices, infrared (IR) devices, rockets, GPS)
- IR pointers
- Combined GPS-derived grid and laser spot
- Visual talk-on.

Suppression of Enemy Air Defenses

The objective of SEAD is to allow friendly aircraft to operate in airspace defended by an enemy air defense system. This involves the suppression of air defense weapons that can threaten friendly aircraft in the immediate vicinity of the target and on ingress and egress routes. Effective SEAD depends on accurate intelligence concerning the location and types of enemy weapons.

- **Surface-Delivered SEAD.** Surface-delivered SEAD involves planning and coordination by the FSCC along with maneuver units down to the company level. Like other suppression missions, surface-delivered SEAD normally requires only a few rounds per target for a short period. The FSC working with the terminal controller and forward observer (FO) coordinate surface-delivered SEAD with target marking.

- **Air-Delivered SEAD.** Air-delivered SEAD and EA must be coordinated and deconflicted to provide necessary support during the time CAS is being conducted.

See MCWP 3-22.2 and Joint Pub 3-01.4 for more information.

Airspace Coordination Area

Aircraft and surface fire weapons both use airspace in the performance of their missions. What must be avoided is both using the same airspace at the same time. The simultaneous use of airspace by aircraft and surface fire weapons increases the chance for interference and possibly fratricide. An ACA helps in fire support coordination by deconflicting airspace use. ACAs are designed to allow the

greatest freedom of action for air support and surface fire support. An ACA's size and shape depend on:

- Aircraft type, ordnance type, and aircraft delivery profile
- Enemy air defense threat
- Location, range, ordnance type, and trajectory of surface indirect fire support systems.

An ACA can vary from a physically defined area or location to various methods of vertical, horizontal, and time separation or deconfliction. Physically defined areas can include routes (CP to IP, HA to BP) or areas (over the target, IP, BP). Methods of separation or deconfliction include lateral separation, altitude separation, timed separation, or any combination of these.

ACAs are referred to as formal or informal. The method selected depends on the time available, the tactical situation, unit SOP, and the state of training. Because formal ACAs require detailed planning, development of formal ACAs is not always used when time is limited. Informal ACAs are temporary control measures. An informal ACA is an expedient measure designed to provide immediate control and deconfliction. As such, informal ACAs are normally short-lived and not as widely disseminated as formal ACAs. Informal ACAs are also known as separation plans. See MCWP 3-16.2, *Techniques and Procedures for Fire Support Coordination*, for more information on ACAs.

- **Formal ACA.** The airspace control authority or component commanders establish formal ACAs. Formal ACAs require detailed planning. Although not always necessary, formal ACAs should be considered. The vertical and lateral limits established

in an ACA are designed to allow freedom of action for air and surface fire support and consider the greatest number of foreseeable targets. Because only the fire direction center (FDC) can determine the trajectory for a particular battery firing at a specific target, each target must be evaluated to ensure the trajectories of the artillery rounds do not penetrate the ACA. The FSC should consult the FDC when deciding the altitude of an ACA. This coordination will determine if the altitude chosen would allow the majority of targets to be attacked without interference with supporting aircraft operations. (See figure 3-5.)

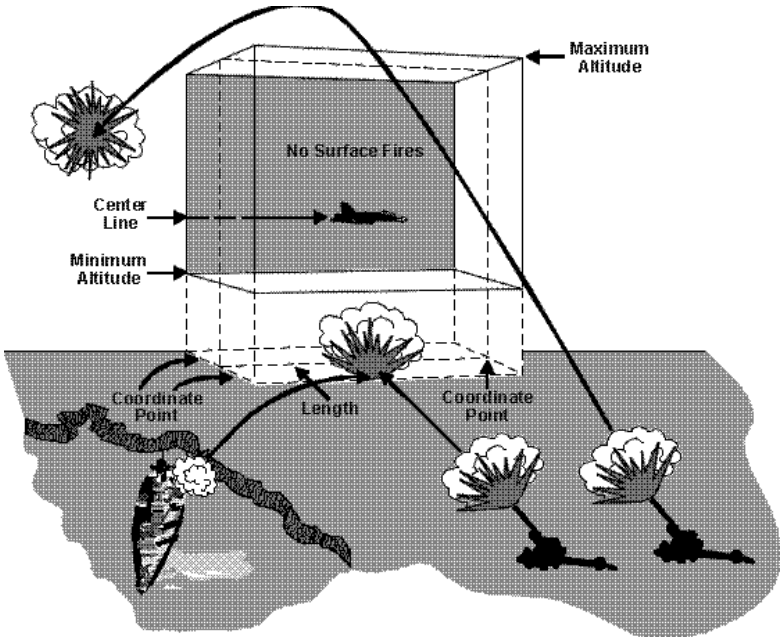

Figure 3-5. Formal Airspace Coordination Area.